

at least one first FIFO unit able to receive a first data from at least one first memory accessible by at least one first processing unit embedded on a chip and able to write said first data to at least one second memory accessible by at least one second processing unit embedded on said chip; and

5 at least one second FIFO unit able to receive a second data from said second memory and able to write said second data to said first memory.

29. A system according to claim 28 wherein said first memory and said second memory are RAM.

30. A system according to claim 28 wherein said first processing unit and said second processing unit are CPUs.

31. A system according to claim 28, further comprising at least one control unit able to control data flow to and from said at least one first FIFO unit and said at least one second FIFO unit.

32. A system according to claim 31 wherein said at least one control unit comprises at least one read channel able to control receipt of said data.

33. A system according to claim 31 wherein said at least one control unit comprises at least one write channel able to control transmission of said data.

34. A system according to claim 28, further comprising a common register accessible by said first memory and said second memory.

35. A system according to claim 28 and further comprising at least two asynchronous clocks controlling said at least two processing units.

36. A method comprising:

first enabling at least one first CPU embedded on a chip to control writing of data to at least one FIFO generally concurrently with second

enabling at least one second CPU embedded on said chip to control reading of said data from said at least one FIFO.

37. A method according to claim 36, wherein said first enabling comprises any of the actions selected from the group consisting of:

- 5 instructing an apparatus to transmit data;
- checking if said at least one FIFO is full before said writing;
- checking if all of said data has been written; and
- transmitting a signal.

38. A method according to claim 36, wherein said second enabling comprises any of
10 the actions selected from the group consisting of:

- instructing an apparatus to receive data;
- checking if said at least one FIFO is empty before said reading;
- checking if all data has been read;
- receiving a signal; and
- 15 transmitting a signal.

39. A method comprising:

- enabling a first processing unit embedded on a chip to write data to a
 FIFO unit from a first memory; and
- enabling a second processing unit embedded on said chip to read said
20 data from said FIFO unit and write said data to a second memory.

40. A method according to claim 39 wherein said first processing unit and said second processing unit are CPUs.

41. A method according to claim 39 wherein said first memory and said second memory are RAM.

42. A system comprising:

at least one first CPU embedded on a chip able to control reading of data from a first memory on said chip; and

at least one second CPU embedded on said chip able to control writing of said data to a second memory on said chip generally simultaneously with said reading.

43. A system according to claim 42 and further comprising at least one FIFO unit used by said first CPU and said second CPU to transfer data therebetween.

44. A system according to claim 42 and further comprising at least one control unit able to control said reading of said data and said writing of said data.

45. A system according to claim 42 and further comprising a register accessible by said first CPU and said second CPU.

46. A system according to claim 42 wherein said first CPU and said second CPU are able to process commands of a networking protocol.

47. A system according to claim 42 and further comprising at least two asynchronous clocks controlling said at least one first and at least one second CPU.

48. A system comprising:

communication means for enabling a first CPU embedded on a chip to send data to a second CPU embedded on said chip; and

means for enabling said first and said second CPU to access memory generally independently of each other.

49. A system according to claim 48 and further comprising a register accessible by said first CPU and said second CPU.